

1. CALFED must focus on preparing an integrated Water Management Strategy.

One of CALFED's greatest successes has been the development of a Strategic Plan for Ecosystem Restoration. The Plan identifies specific restoration objectives and outlines the course of action for their attainment. For many months the conservation community has pressed CALFED, and its member agencies, to adopt a similar approach to water supply reliability. To date, CALFED has no clear water supply reliability objectives and no coherent strategy for achieving them. Rather, the approach to reliability has been, in effect, simply to maximize all "tools". Without repeating our prior criticisms of Bulletin 160's demand and shortage projections, we note that there is no consensus yet around a reasonable range of reliability objectives for CALFED.

The fundamental problem with the ISI as drafted is that it appears to begin with the conclusion that additional surface storage will be part of the CALFED preferred alternative. As you know, it is our view that CALFED has failed to make the case that new surface storage is (1) required to meet reasonable CALFED water supply reliability objectives; (2) economically competitive with other reliability options; or (3) compatible with the other CALFED program objectives, such as ecosystem restoration. We remain open-minded about each of these questions and believe that it is appropriate for CALFED to investigate them. However, we cannot countenance CALFED's failure to resolve these issues in what has become a rush to judgment that new (or expanded) reservoirs are necessary.

We believe that the three questions above are the ones that CALFED must focus on and address before proposing a preferred alternative. The issue is not "where and how" but "whether and when". In its current form, the ISI fails to address and resolve these foundational questions and prematurely moves towards an emphasis on site specific planning investigations. Such investigations are simply not appropriate unless and until a thorough programmatic level review makes a compelling case for the role of new surface storage in the water supply reliability mix.

2. The ISI must establish operational criteria and assurances for any proposed new storage facilities.

Proponents of new storage facilities have often claimed potential benefits for flood control, water quality, drought water supplies and ecosystem restoration. We remain skeptical of the feasibility of developing new storage which could actually provide such broad benefits. In fact, some of these alleged benefits may be in direct conflict (e.g. increases in flood reservation capacity would reduce water supply yield). However, these "benefits" are being cited as justification of new facilities. In addition, agricultural interests

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continue to press CALFED to develop new facilities primarily to increase average annual deliveries to water users, primarily agricultural contractors.

For CALFED to determine the need (if any) for additional storage, the ISI must produce clear operational criteria for any proposed storage. In addition, before any new storage is determined to be needed, the ISI must provide adequate assurances that such facilities would be operated in compliance with the operational criteria which have been used to justify its construction.

Recent conversations with CALFED staff have illustrated the importance of this challenge. We understand that initial modeling of new surface storage reveals that operational criteria focused on providing drought year benefits would produce relatively small dry year increases in yield, significant decreases in average year yield and a significant increase in unit costs. As a result, CALFED's modeling efforts appear to be focused on operating new storage for average year supplies. If actually constructed and operated in this manner, it is entirely possible that such new facilities would fail to provide significant water supply benefits in an extended drought (even without considering the environmental and economic costs, as well as flood management and water quality issues).

We believe that these results, although preliminary, suggest that new surface storage may not be an appropriate part of a CALFED preferred alternative. However, the current approach appears to be to change the focus of CALFED's water supply reliability program from dry year benefits to increasing average deliveries, for the specific purpose of keeping surface storage "in the mix".

CALFED must take great care to assure that the investigation of storage and other tools remains focused, transparent and credible. Without clear water supply reliability objectives and a well-designed investigative program, a preferred alternative will be largely determined by intuition and political considerations. Under such circumstances, CALFED is unlikely to be successful.

3. The economic analysis of water management options and the CALFED financing strategy must reflect the same operational assumptions utilized in the ISI.

The CALFED economic analysis must be based on the same operational assumptions utilized in the ISI. The cost of new storage, for example, depends a great deal on the operational assumptions regarding the availability of water to fill new storage and how, when, and to whom this water is delivered. At the moment, there does not appear to be full coordination among the operational and economic evaluations.

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For example, some water users have suggested that new surface storage facilities could be operated in conjunction with new groundwater storage facilities. Under this scenario, new reservoirs would capture peak flows and then "meter" this water out into new groundwater reservoirs. The cost of an acre foot of water which relies on this "dual storage" scenario would be very high. The Economic Evaluation of Water Management Alternatives has not, we believe, begun evaluating the cost of such an alternative.

Likewise, developing a financing strategy based on CALFED's "beneficiaries pay" principle will require determining the beneficiaries of new storage based on clear operational assumptions. As discussed above, we believe that alleged water quality, ecosystem and flood control "benefits" are being used to blur the process of defining beneficiaries of new storage. We are pleased that the ISI continues to contain the CALFED "beneficiaries pay" principle, however, without clear operational assumptions, a definition of beneficiaries and a process for obtaining early "buy in" to a CALFED financing package, such a principle is virtually meaningless.

4. Developing a financing strategy must be an early priority for the ISI.

As discussed above, the ISI and the Water Management Strategy have not yet developed a financing strategy. Given the multi-billion dollar cost of a preferred alternative, financing is likely to be one of the major factors determining the content of the preferred alternative. Therefore, it is critical that CALFED develop a financing strategy in the very near future, along with commitments to pay from potential beneficiaries (and therefore funding partners). This package must be developed well before a preferred alternative is identified, not after the fact. Without a commitment to finance from beneficiaries, no true evaluation of the need for new storage can be completed.

The financing of new storage investigations should include up-front cost sharing by water users and full reimbursement should any project be constructed. In the case of Delta Wetlands, discussed in the ISI, the cost of these investigations are being borne by private interests. We fear that public financing of some storage investigations could give these alternatives an unfair and inaccurate advantage over other tools.

Finally, some stakeholders have suggested that new surface storage should be built with ecosystem funds, because these facilities will provide ecosystem benefits. These alleged benefits are discussed below, however, even in the unlikely event that CALFED is able to demonstrate ecosystem benefits from new surface storage, this finding by itself should not trigger ecosystem funding from new storage. First, CALFED must consider unmet mitigation obligations of water users. Second, CALFED must determine what ecosystem actions will provide the most "bang for the buck" from limited ecosystem

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restoration funds. Once this evaluation is completed, we believe that there will be no justification for using ecosystem funds for the construction of new surface storage facilities.

5. CALFED must thoroughly investigate potential impacts and alleged environmental benefits of new storage in its Ecosystem Restoration Program, and apply these findings in the ISI.

The draft ISI paper acknowledges the importance of addressing key environmental issues. Nevertheless, it contains very limited investigation with regard to such issues beyond a modest inquiry into the development of operating criteria for filling new reservoirs. There are, of course, other potential impacts from new storage reservoirs. Evaluating some of these impacts, such as the cumulative impacts of depletions and diversion (suggesting the need for a diversion and depletion cap and a "water budget") temperature changes and geofluvial impacts will require substantial efforts. At the moment, the Ecosystem Restoration Program and the ISI do not identify how these potential impacts will be fully investigated.

CALFED's evaluation must go beyond investigating the adverse environmental impacts of new surface reservoirs. A fundamental assumption of the Program is the premise that construction of new surface water storage will in fact benefit the fish and wildlife resources of the Bay-Delta watershed and that more environmentally friendly, economically viable alternatives are not feasible. This is an issue around which there is considerable controversy and virtually no consensus. If CALFED is going to continue to include new surface storage in the preferred alternative as the environmentally superior alternative, it must produce compelling technical justification to support this premise.

We have several concerns in this regard. First, we are not aware of any situation in which new surface water supply reservoirs have been successful in providing environmental benefits over and above the adverse environmental impacts they have caused or contributed to. Second, the notion that "dams are for fish" is skewing the beneficiaries question to the point that we are seeing proposals to use limited ecosystem restoration money to implement new dam building. This is one of the most serious and troubling aspects about the current direction of the CALFED program. We are aware of virtually no justification or evidence offered by CALFED to date to support claims of environmental benefits from new storage facilities. At the moment, although there are very ambitious programmatic and site specific investigations evaluating new surface storage, we do not see, in the ISI or elsewhere, an ambitious, affirmative program to investigate claims of environmental benefits.

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The frequently-cited concept that water has a "time value" for the environment is not new. In fact, storing water when its value is perceived to be lower and releasing it when its value is perceived to be higher is the reason all water supply reservoirs are built. Dry year or dry season environmental benefits have been claimed for many storage facilities. However, we have not been able to discover any comparable situation where such "time value" environmental benefits have been produced by new surface storage. In fact, the actual results are usually to the detriment of the environment. Given the enormous modification of the natural hydrograph which has already taken place in the Bay-Delta watershed, we are very skeptical of assertions of environmental benefits from new surface storage facilities.

The relationship of new storage facilities and flood plain restoration provides a clear example of the importance of coordinating storage modeling and environmental analysis. The ecosystem restoration program is developing an ambitious floodplain and habitat restoration program. Such a program could provide increased flood protection, as well as increased yield from upstream reservoirs, through reductions in flood control reservations. (See the EWC Water Supply Reliability Blueprint for a more complete discussion.) Such a restoration program will require significant pulse flows to maintain healthy habitats and channel morphology. Thus, far from providing environmental benefits, new storage which would decrease peak flows could conflict with the CALFED ecosystem restoration program.

6. The reoperation of existing hydroelectric facilities will not produce "new" water.

Water released as a part of hydroelectric generation currently is either diverted by downstream users, or remains in the environment through the Delta. Although we believe that there may be benefits from hydro reoperation, such reoperation must be scrutinized carefully for cumulative depletion and other environmental impacts as well as impacts on existing water users. We were pleased to hear your comments recognizing these concerns at the March 15 meeting and suggest that this section of the ISI be fleshed out to assure that these issues are fully investigated.

7. The ISI does not distinguish between work needed to make programmatic decisions and site specific investigations which will be used to justify specific projects.

Given the inadequate investigation to date of economics, financing, environmental and other issues, the ISI and the overall CALFED effort should be should be carefully designed to assure that no site specific investigation takes place which goes beyond the needs of CALFED's programmatic investigation. The ISI and all CALFED agencies must clearly and unequivocally recognize that the investigations in the ISI do not suggest

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that a decision has been made regarding the need for additional surface storage.

8. The ISI must be carefully constructed to meet the requirements of Section 404 of the Clean Water Act and other environmental laws.

The ISI acknowledges the need to comply with Section 404, and the importance of the Economic Evaluation of Water Management Alternatives and other CALFED investigations to comply with this and other legal requirements. However, the CALFED program, as currently designed, will not provide an adequate foundation for a legally adequate finding of compliance with Section 404. Specific inadequacies include the following:

- CALFED has not adequately defined the "project purpose" under Section 404. Without specific water supply reliability goals, responsible federal agencies cannot evaluate the potential for a variety of alternative approaches to meet the project purpose.
- CALFED has not completed an adequate needs analysis. This will require a comprehensive economic analysis. We are hopeful that the Economic Evaluation of Water Management Alternatives will help meet this need. However, the late start of this analysis means that it is too early to determine if this process is adequately designed to provide needed answers. It is also not clear if the effort will yield results before the preferred alternative is selected. This problem is worsened by CALFED's reliance for its needs analysis on a deeply flawed Bulletin 160.
- CALFED is not fully evaluating the proper range of alternatives. Due to political considerations, CALFED has limited review of the potential water supply benefits of an ambitious land retirement program. Likewise, the CALFED agricultural and urban conservation, water transfer and other programs fall far short of the unbiased, robust evaluation of alternatives required by Section 404.

In addition, CALFED should review other applicable requirements (e.g. CESA, ESA, NEPA, CEQA, public trust) to reveal other issues which must be addressed in the ISI.

9. The ISI must provide a firm foundation for a science-driven, objective evaluation of dam removal opportunities.

Dam removal, and other fish migration barrier removal strategies, have raised opposition from some small but vocal special interests. We welcome this first step towards an objective, comprehensive fish passage program which is a critical part of a CALFED ecosystem restoration program.

10. The ISI must address key groundwater and conjunctive use management issues.

The environmental community believes that both water supply and environmental benefits can be produced through the improved management of groundwater resources. However, the current management regime in California provides little incentive for intelligent, long-term management of groundwater resources. In addition, some stakeholders are advocating new surface storage to help address groundwater problems. Both the CVP and the SWP were justified in part by the need to address groundwater issues. We believe that without addressing fundamental issues, such as groundwater regulation and the metering and reporting of groundwater pumping, CALFED's ISI and Water Management Strategies will be unable to provide significant improvements in water supply reliability.

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